```
FFFFFFFFFFFFFF    000000000    RRRRRRRRRRR    RRRRRRRRRRR    TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFF    000000000    RRRRRRRRRRR    RRRRRRRRRRR    TTTTTTTTTTTTTTT  LLL
FFFFFFFFFFFFFF    000000000    RRRRRRRRRRR    RRRRRRRRRRR    TTTTTTTTTTTTTTT  LLL
FFF            000      000    RRR      RRR    RRR      RRR        TTT         LLL
FFF            000      000    RRR      RRR    RRR      RRR        TTT         LLL
FFF            000      000    RRR      RRR    RRR      RRR        TTT         LLL
FFF            000      000    RRR      RRR    RRR      RRR        TTT         LLL
FFF            000      000    RRR      RRR    RRR      RRR        TTT         LLL
FFFFFFFFFFF    000      000    RRRRRRRRRRR    RRRRRRRRRRR         TTT         LLL
FFFFFFFFFFF    000      000    RRRRRRRRRRR    RRRRRRRRRRR         TTT         LLL
FFFFFFFFFFF    000      000    RRRRRRRRRR     RRRRRRRRRR          TTT         LLL
FFF            000      000    RRR  RRR       RRR  RRR            TTT         LLL
FFF            000      000    RRR  RRR       RRR  RRR            TTT         LLL
FFF            000      000    RRR   RRR      RRR   RRR           TTT         LLL
FFF            000      000    RRR    RRR     RRR    RRR          TTT         LLL
FFF            000      000    RRR    RRR     RRR    RRR          TTT         LLL
FFF            000      000    RRR     RRR    RRR     RRR         TTT         LLL
FFF              000000000     RRR      RRR   RRR      RRR        TTT         LLLLLLLLLLLLLLL
FFF              000000000     RRR      RRR   RRR      RRR        TTT         LLLLLLLLLLLLLLL
FFF              000000000     RRR      RRR   RRR      RRR        TTT         LLLLLLLLLLLLLLL
```

```
FFFFFFFFF    000000     RRRRRRR            JJ  DDDDDDD      AAAAAA    TTTTTTTTTT  EEEEEEEEEE
FFFFFFFFF    000000     RRRRRRR            JJ  DDDDDDD      AAAAAA    TTTTTTTTTT  EEEEEEEEEE
FF          00    00    RR    RR           JJ  DD    DD    AA    AA      TT      EE
FF          00    00    RR    RR           JJ  DD    DD    AA    AA      TT      EE
FF          00    00    RR    RR           JJ  DD    DD    AA    AA      TT      EE
FF          00    00    RR    RR           JJ  DD    DD    AA    AA      TT      EE
FFFFFFFF    00    00    RRRRRRR            JJ  DD    DD    AA    AA      TT      EEEEEEEE
FFFFFFFF    00    00    RRRRRRR            JJ  DD    DD    AA    AA      TT      EEEEEEEE
FF          00    00    RR RR        JJ    JJ  DD    DD    AAAAAAAAAA    TT      EE
FF          00    00    RR RR        JJ    JJ  DD    DD    AAAAAAAAAA    TT      EE
FF          00    00    RR    RR     JJ    JJ  DD    DD    AA    AA      TT      EE
FF          00    00    RR    RR     JJ    JJ  DD    DD    AA    AA      TT      EE       ....
FF            000000    RR    RR   JJJJJJ      DDDDDDD     AA    AA      TT      EEEEEEEEEE ....
FF            000000    RR    RR   JJJJJJ      DDDDDDD     AA    AA      TT      EEEEEEEEEE ....

LL              IIIIII      SSSSSSSS
LL              IIIIII      SSSSSSSS
LL                II      SS
LL                II      SS
LL                II      SS
LL                II         SSSSSS
LL                II         SSSSSS
LL                II               SS
LL                II               SS
LL                II               SS
LL                II               SS
LLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLL      IIIIII      SSSSSSSS
```

FOR$JDATE
Table of contents
; Time and Date as long integers L 8    15-SEP-1984 23:54:37  VAX/VMS Macro V04-00    Page  0

```
            0000        1              .TITLE  FOR$JDATE      ; Time and Date as long integers
            0000        2              .IDENT  /1-002/        ; File: FORJDATE.MAR
            0000        3
            0000        4      ;
            0000        5      ;*******************************************************************************
            0000        6      ;*                                                                             *
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            0000       24      ;*                                                                             *
            0000       25      ;*                                                                             *
            0000       26      ;*******************************************************************************
            0000       27      ;
            0000       28      ;
            0000       29      ; FACILITY: FORTRAN SYSTEM LIBRARY
            0000       30      ;++
            0000       31      ; ABSTRACT:
            0000       32      ;
            0000       33      ;       Return current month, day, and year as INTEGER*4 values.
            0000       34      ;
            0000       35      ;--
            0000       36      ;
            0000       37      ; VERSION: 0
            0000       38      ;
            0000       39      ; HISTORY:
            0000       40      ;
            0000       41      ; AUTHOR:
            0000       42      ;       Jonathan M. Taylor, 17-Aug-77: Version 0
            0000       43      ;
            0000       44      ; MODIFIED BY:
            0000       45      ;
            0000       46      ;
            0000       47      ;
```

FOR$JDATE
1-002

N 8

; Time and Date as long integers    15-SEP-1984 23:54:37  VAX/VMS Macro V04-00    Page  2
HISTORY  ; Detailed Current Edit History  6-SEP-1984 10:57:10  [FORRTL.SRC]FORJDATE.MAR;1    (2)

```
0000    49          .SBTTL  HISTORY         ; Detailed Current Edit History
0000    50
0000    51
0000    52 ; Edit History for Version 0 of FOR$JDATE
0000    53 ;
0000    54 ; 1-001 - Update version number and copyright notice.  JBS 16-NOV-78
0000    55 ; 1-002 - Add "_" to the PSECT directive.  JBS 22-DEC-78
```

B 9

FOR$JDATE          ; Time and Date as long integers          15-SEP-1984 23:54:37   VAX/VMS Macro V04-00       Page   3
1-002              DECLARATIONS                              6-SEP-1984 10:57:10   [FORRTL.SRC]FORJDATE.MAR;1        (3)

```
                0000    57                    .SBTTL  DECLARATIONS
                0000    58
                0000    59 ;
                0000    60 ; INCLUDE FILES:
                0000    61 ;      oerr.mar
                0000    62
                0000    63 ;
                0000    64 ; EXTERNAL SYMBOLS:
                0000    65 ;
                0000    66
                0000    67 ;
                0000    68 ; MACROS:
                0000    69 ;
                0000    70
                0000    71 ;
                0000    72 ; PSECT DECLARATIONS:
            00000000    73        .PSECT  _FOR$CODE        PIC, SHR, LONG, EXE, NOWRT
                0000    74
                0000    75 ;
                0000    76 ; EQUATED SYMBOLS:
                0000    77 ;
                0000    78
                0000    79 ;
                0000    80 ; OWN STORAGE:
                0000    81 ;      none
```

FOR$JDATE
1-002

C 9
; Time and Date as long integers          15-SEP-1984 23:54:37   VAX/VMS Macro V04-00   Page  4
FOR$JDATE - return month, day, year as I  6-SEP-1984 10:57:10   [FORRTL.SRC]FORJDATE.MAR;1        (4)

```
                          0000    83              .SBTTL  FOR$JDATE - return month, day, year as INTEGER*4
                          0000    84
                          0000    85  ;++
                          0000    86  ;  FUNCTIONAL DESCRIPTION:
                          0000    87  ;
                          0000    88  ;      FOR$JDATE uses system service $NUMTIM to get date information.
                          0000    89  ;      This information is converted to the appropriate type and stored
                          0000    90  ;      through the addresses passed as parameters.
                          0000    91  ;
                          0000    92  ;  CALLING SEQUENCE:
                          0000    93  ;
                          0000    94  ;      CALL FOR$JDATE (month.wl.r, day.wl.r, year.wl.r)
                          0000    95  ;
                          0000    96  ;  INPUT PARAMETERS:
                          0000    97  ;
                          0000    98  ;      month.wl.r      adr of longword to place month (1-12) integer
                          0000    99  ;      day.wl.r        adr of longword to place day (1-31) integer
                          0000   100  ;      year.wl.r       adr of longword to place year (0-99)integer
                          0000   101  ;
                          0000   102  ;  IMPLICIT INPUTS:
                          0000   103  ;      NONE
                          0000   104  ;
                          0000   105  ;  OUTPUT PARAMETERS:
                          0000   106  ;      NONE
                          0000   107  ;
                          0000   108  ;  IMPLICIT OUTPUTS:
                          0000   109  ;      NONE
                          0000   110  ;
                          0000   111  ;  COMPLETION CODES:
                          0000   112  ;      NONE
                          0000   113  ;
                          0000   114  ;  SIDE EFFECTS:
                          0000   115  ;      SIGNALs Integer Overflow (this should never happen)
                          0000   116  ;
                          0000   117  ;--
                          0000   118
                          0000   119
                          0000   120
                   4000   0000   121              .ENTRY  FOR$JDATE,        ^M<IV>
           5E   10   C2   0002   122              SUBL    #16, SP                 ; save 8 words for $NUMTIM
           50   5E   DO   0005   123              MOVL    SP, RO                  ; RO -> data area
                          0008   124              $NUMTIM_S       (RO)           ; get system time values
           50   8E   3C   0013   125              MOVZWL  (SP)+, RO              ; RO = "year since 0"
                51   D4   0016   126              CLRL    R1                      ; as a quadword value
50  50  50  00000064 BF  7B   0018   127              EDIV    #100, RO, RO, RO      ; RO = two digit year value
        0C BC   50   DO   0021   128              MOVL    RO, @12(AP)            ; return year
        04 BC   8E   32   0025   129              CVTWL   (SP)+, @4(AP)          ; return month
        08 BC   6E   32   0029   130              CVTWL   (SP), @8(AP)           ; return day
                     04   002D   131              RET                            ; return
                          002E   132
                          002E   133
                          002E   134              .END
```

FOR$JDATE                          ; Time and Date as long integers  D  9    15-SEP-1984 23:54:37  VAX/VMS Macro V04-00    Page  5
Symbol table                                                                  6-SEP-1984 10:57:10  [FORRTL.SRC]FORJDATE.MAR;1         (4)
```

```
FOR$JDATE          00000000 RG     01
SYS$NUMTIM         ******** G       01
```

```
                                  +-------------------+
                                  ! Psect synopsis !
                                  +-------------------+
```

```
PSECT name                       Allocation          PSECT No.   Attributes
----------                       ----------          ---------   ----------
.  ABS  .                        00000000 (    0.)   00 (   0.)  NOPIC   USR   CON   ABS   LCL   NOSHR   NOEXE   NORD   NOWRT   NOVEC   BYTE
_FOR$CODE                        0000002E (   46.)   01 (   1.)  PIC     USR   CON   REL   LCL   SHR     EXE     RD     NOWRT   NOVEC   LONG
```

```
                                  +---------------------------+
                                  ! Performance indicators !
                                  +---------------------------+
```

```
Phase                     Page faults     CPU Time        Elapsed Time
-----                     -----------     --------        ------------
Initialization                 29         00:00:00.06     00:00:01.34
Command processing            111         00:00:00.55     00:00:04.32
Pass 1                         97         00:00:00.51     00:00:02.82
Symbol table sort               0         00:00:00.00     00:00:00.00
Pass 2                         38         00:00:00.28     00:00:01.34
Symbol table output             2         00:00:00.00     00:00:00.01
Psect synopsis output           2         00:00:00.02     00:00:00.13
Cross-reference output          0         00:00:00.00     00:00:00.00
Assembler run totals          281         00:00:01.44     00:00:09.96
```

The working set limit was 1050 pages.
1669 bytes (4 pages) of virtual memory were used to buffer the intermediate code.
There were 10 pages of symbol table space allocated to hold 2 non-local and 0 local symbols.
134 source lines were read in Pass 1, producing 11 object records in Pass 2.
2 pages of virtual memory were used to define 2 macros.

```
                                  +----------------------------+
                                  ! Macro library statistics !
                                  +----------------------------+
```

```
Macro library name                            Macros defined
------------------                            --------------
_$255$DUA28:[SYSLIB]STARLET.MLB;2                   2
```

13 GETS were required to define 2 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS$:FORJDATE/OBJ=OBJ$:FORJDATE MSRC$:FORJDATE/UPDATE=(ENH$:FORJDATE)